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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,957	12/27/2000	Tadayoshi Kono	108391-00014	3190

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EXAMINER	
VO, TUNG T	
ART UNIT	**PAPER NUMBER**
2613	

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/747,957	KONO ET AL.	
	Examiner	Art Unit	
	Tung Vo	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/21/2005 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Mendenhall et al. (US 6,424,381 B1).

Re claims 1 and 9, Mendendhall discloses an MPEG video decoder (fig. 4) comprising:

an image decoding section (130 of fig. 6) which decodes parameters of each layer and a picture based on an MPEG bit stream;

a frame memory (114 of fig. 6) having a plurality of banks and connected to decoding section (130 of fig.5), wherein each of said bank stores one picture and the parameters of each layer decoded by said image decoding section by manually relating the picture and the parameters as set (col. 8, lines 34-45), wherein the layer includes sequence layer which has a horizontal size value and vertical size value, both expressing sizes of an image, as parameters (MPEG standard has a sequence layer that has a horizontal size value and a vertical size value (col. 8, lines 27-33)

a decode control section (128 of fig. 6) which controls said image decoding section; and a display control section (134, 230 of fig.6) which carries out a display control of a picture to be displayed, based on the parameters (Status and Control, Interface 124 of fig. 6) of each layer related to said picture stored in said frame memory (114 of fig. 6).

Re claims 2 and 10, Mendendhall further discloses a status register which displays a state of storing pictures of the plurality of banks (124 of fig. 2, e.g. the host interface includes registers, read and write FIFO and others logical, status and control), wherein said decode

control section updates said status register when the decoding of one picture has been completed, and said display control section updates said status register when the display of one picture has been completed.

Re claim 3, Mendendhall further discloses wherein said image decoding section has an internal buffer (col. 8, lines 40-42, e.g. the decoder 130 includes buffers for storing the decoded image and each of the syntax layers (parameters)) that temporarily stores a decoded picture in a macro-block unit.

Re claim 4 Mendendhall further discloses wherein said internal buffer also works as a buffer for temporarily storing the decoded parameters of each layer (col. 8, lines 40-42, e.g. the decoder 130 includes buffers for storing the decoded image and each of the syntax layers (parameters)).

Re claim 5, Mendendhall further discloses wherein a data transfer path for transferring a decoded picture from said internal buffer to said frame memory also works as a data transfer path for transferring the decoded parameters of each layer between said internal buffer and said frame memory (14 of fig. 1).

Re claim 6, Mendendhall further discloses wherein said image decoding section decodes the parameters of a picture to be decoded, and updates parameters of each layer related to a picture that has been decoded immediately before by writing the decoded parameters into these parameters, thereby to generate the parameters of each layer relating to the picture to be decoded (124 of fig. 6, e.g. the host microcontroller (104 of fig. 4) writes video, audio, and configuration data and other status information to predefined registers and the host interface 124).

Re claim 7, Mendendhall further discloses wherein said decode control section operates asynchronously with a vertical synchronization signal, and said display control section operates in synchronism with the vertical synchronization serial (230 of fig. 6, e.g. the display control 230 sets the location of the video image on the display 90 (FIG. 2) with respect to sync signals (not shown) to account for the requirements of several different timing systems and display modes. The output signal from horizontal interpolation filter 238 is then processed by SPU mixer 240 which adds SPU data from the SPU decoder 132 to the video data stream from filter 238).

Re claim 8, Mendendhall further discloses wherein if the displayed picture is a reference picture of other picture, then said display control section does not update said status register after the completion of the display of that picture (120 of fig. 4, e.g. the decoder 120 continuously or periodically monitors the registers for updated information and responds accordingly).

Re claims 1 1-12, Mendendhall further discloses the video decoder (130 of fig. 6) also decodes layer of syntax in the MPEG bitstream starting from **the sequence layer** and going through all of the lower layers including the **group of picture layer, picture layer, slice layer, macro block layer** and **block layer** (col. 8, lines 27-33).

Prior Arts of Records

Uramoto (US5,699,117) discloses a moving picture, wherein the MPEG standard (fig. 30) contains the sequence layer includes sequences 1150, each of which is formed by one or a plurality of GOPs 1140 or one or a plurality of pictures 1130. A sequence header 1155 storing information such as the screen format is arranged at the head of the sequence 1150. This sequence header 1155 can be arranged at the head of every GOP 1140 included in the sequence

1150 (for allowing reproduction of pictures from an intermediate stage of the sequence). The sequence header 1155 stores information such as a start code having a prescribed pattern indicating starting of the sequence, horizontal and vertical sizes of the pictures, a picture rate (picture display rates), a bit rate and contents thereof etc.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hrusecky (US 6,442,206 B1) discloses anti-flicker logic for MPEG video decoder with integrated scaling and display functions.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tung Vo
Primary Examiner
Art Unit 2613